

SECTION 7

LIGHTING

07.A GENERAL

07.A.01 While work is in progress, offices, facilities, accessways, working areas, construction roads, etc., shall be lighted by at least the minimum light intensities specified in Table 7-1.

07.A.02 Means of egress.

a. Means of egress shall be illuminated, with emergency and non-emergency lighting, to provide a minimum of 11 lux (lx) (1 footcandle (lm/ft²)), measured at the floor. > **Reference NFPA 101**

b. The illumination shall be arranged so that the failure of any single lighting unit, including the burning out of an electric bulb, will not leave any area in total darkness.

**TABLE 7-1
MINIMUM LIGHTING REQUIREMENTS**

Facility or function	Illuminance - lx (lm/ft ²)
Accessways	
- general indoor	55 (5)
- general outdoor	33 (3)
- exitways, walkways, ladders, stairs	110 (10)
Administrative areas (offices, drafting and meeting rooms, etc.)	540 (50)
Chemical laboratories	540 (50)
Construction areas	
- general indoor	55 (5)
- general outdoor	33 (3)
- tunnels and general underground work areas (minimum 110 lux required at tunnel and shaft heading during drilling, mucking, and scaling)	55 (5)
Conveyor routes	110 (10)
Docks and loading platforms	33 (3)
Elevators, freight and passenger	215 (20)
First aid stations and infirmaries	325 (30)
Maintenance/operating areas/shops	
- vehicle maintenance shop	325 (30)
- carpentry shop	110 (10)
- outdoors field maintenance area	55 (5)
- refueling area, outdoors	55 (5)
- shops, fine detail work	540 (50)
- shops, medium detail work	325 (30)
- welding shop	325 (30)
Mechanical/electrical equipment rooms	110 (10)
Parking areas	33 (3)
Toilets, wash, and dressing rooms	110 (10)
Visitor areas	215 (20)
Warehouses and storage rooms/areas	
- indoor stockroom, active/bulk storage	110 (10)
- indoor stockroom, inactive	55 (5)
- indoor rack storage	270 (25)
- outdoor storage	33 (3)
Work areas - general (not listed above)	325 (30)

SECTION 8

ACCIDENT PREVENTION SIGNS, TAGS, LABELS, AND SIGNALS AND PIPING SYSTEM IDENTIFICATION

08.A SIGNS, TAGS, LABELS, AND PIPING SYSTEMS

08.A.01 Signs, tags, and labels shall be provided to give adequate warning and caution of hazards and instruction and directions to workers and the public.

08.A.02 Signs, tags, and labels shall be visible at all times when the hazard or problem exists and shall be removed or covered when the hazard or problem no longer exists.

08.A.03 All employees shall be informed as to the meaning of the various signs, tags, and labels used throughout the workplace and what special precautions are required: all employees shall be instructed that danger signs and tags indicate immediate danger and shall be informed of any special precautions that may be required.

08.A.04 The type of sign or tag used in a particular situation shall be appropriate for the degree of hazard or intent of message.

> See Table 8-1

a. Signs for contractor operations shall be in accordance with Table 8-1; for USACE operations, design shall be in accordance with Table 8-1 or the USACE Sign manual.

b. Color coding shall be in accordance with Table 8-2.

c. Piping systems shall be identified: it is recommended that the identification of piping systems (including pipes, fittings, valves, and pipe coverings) be in accordance with Table 8-3 and Figure 8-3.

d. The radio frequency radiation hazard warning symbol specified in Figure 8-4 shall be used in the identification of radio frequency radiation hazards.